

Appln. No. 10/649,722
Reply to the Office Action of September 30, 2005

REMARKS

Claims 1-18 have been canceled. Claims 19-35 are active in the present application.
Reconsideration is respectfully requested.

The present invention relates to a composition that is useful as a water scavenger, a dryer or a premature-crosslinking preventative.

Claim Amendments

Original Claims 1 and 2 have been combined in newly presented Claim 19. Original Claim 5 has been canceled in favor of new Claim 22. None of the new claims introduce new matter into the case. Entry of the new claims into the record is respectfully requested.

Claim Rejection, 35 USC 102

The rejection of Claim 1 is obviated by its cancellation in favor of new Claim 19.
Withdrawal of the rejection is respectfully requested.

Prior Art Rejection, 35 USC 103

Claims 2-18 stand rejected based on 35 USC 103 as obvious over Berg et al, U. S. Patent 5,895,794 or Mack et al, U. S. Patent 6,395,858 or Edelmann et al, U. S. Patent 6,133,466. This ground of rejection is respectfully traversed.

The Berg et al patent discloses a crosslinked polysiloxane dispersion that is comprised of a siloxane polymer, a polymer mixture- or polymer/solvent mixture, and is thereby a silicone latex dispersion that is useful in a variety of applications as sealants, putties, molding materials

and foams. As such the patent does not show or suggest the reactive composition of the present invention in which an alkoxysiloxane which is selected from the group of catenate alkoxysiloxanes and cyclic siloxanes is combined with a crosslinkable polymer with the result that the composition functions as a stable material that is effective as a dryer or water scavenger in that it effectively reacts with water.

More particularly, as the patent describes in columns 2 and 3, the composition of the patent is a silicone latex that has a silicone content of 75 %. The silicone material is a crosslinked product of a siloxane polymer or polymer mixture and a crosslinker, and the siloxane polymer or polymer mixture is such that each has at least one polymer species having formula I at line 1 of column 3, wherein the R groups of the molecule are selected from the radicals of lines 9-10 of column 3 and the R¹ groups are selected from the hydrocarbyl radicals of lines 12-13 of column 3. As such the crosslinked silicone based latex of the reference is not the crosslinkable composition as claimed in present Claim 19, nor does the patent suggest the composition of Claim 19.

The Mack et al patent describes a mixture of a siloxane and a cyclic siloxane oligomers which is formulated to function as an adhesion promoter in adhesives and sealants. No function as a dryer or water scavenger is disclosed in the patent for the disclosed formulation. In the formulas shown for the two types of siloxane compounds, substituent R is selected from three groups, one of which is aminopropyl functional groups, a second group being alkoxy type groups and a third group of hydrocarbyl radicals. The patent further requires that not more than one aminopropyl group is attached to one silicon atom. Thus, it is clear that neither the catenate siloxane molecule nor the cyclic siloxane molecule of the alkoxysiloxane component of the

present composition is the same as the catenate siloxane molecule or the cyclic siloxane molecule of the reference. No R group of the compounds of the present invention is an aminopropyl group, and the proviso of the present claims that no more than one hydrocarbon functional group be attached to each silicon atom is not found in the reference. Clearly, the catenate alkoxysiloxane and cyclic siloxane compounds of the patent do not suggest the alkoxysiloxane component of the present composition.

The Edelmann et al patent also discloses a composition of a mixture of catenate alkoxysiloxane and cyclic siloxane compounds. However, here the compounds are so formulated as to be useful as an additive to paints and varnishes and as such are useful as binders and adhesives. As such the R groups of the two types of compounds of the patent are selected from 3-methacryloxypropyl or 3-acryloxypropyl groups, lower alkoxy groups alone or together with hydrocarbyl groups. Further, the reference requires that not more than one 3-methacryloxypropyl or 3-acryloxypropyl group per silicon atom be present in the two compounds. Accordingly, there is absolutely no teaching or suggestion in the reference of a siloxane composition that functions as a dryer or water scavenger, and there is no teaching or suggestion of an alkoxysiloxane composition that is comprised of a catenate alkoxysiloxane compound and a cyclic siloxane compound as defined in the present claims.

Finally, the EP '057 reference discloses a mixture of a catenate siloxane compound and a cyclic siloxane compound for the purpose of use as an additive to thermoplastic polyolefins. The formulas for the two types of siloxane materials disclosed are shown at the top of page 2 of the document, and in the compounds, group R is selected from the group of vinyl, methoxy and/or ethoxy and/or alkyl isoalkyl or cycloalkyl of 1 to 18 carbon atoms. The mole ratio of

vinyl groups to alkoxy groups in the molecules ranges from 1:1 to 1:8, and the mole ratio of vinyl groups to alkyl groups in the molecules ranges from 1:0 to 1:8. Accordingly, it is clear that the reference nowhere teaches or suggests a siloxane composition that functions as a dryer or water scavenger, and there is no teaching or suggestion of an alkoxysiloxane composition that is comprised of a catenate alkoxysiloxane compound and a cyclic siloxane compound as defined in the present claims. Accordingly, the cited prior art does not obviate the present invention as claimed in any of its embodiments and withdrawal of the rejection is respectfully requested.

Double Patenting Rejection

Claims 1-18 stand rejected based on the judicially created doctrine of obviousness type double patenting as obvious over Claim 16 of U. S. Patent 6,780,955. This ground of rejection is respectfully traversed.

Although the patent in Claim 16 discloses a water scavenging property for the mixture of siloxane compounds whose process of synthesis is described in Claim 1, nevertheless, it is clear from the definition of R groups in the claims of the patent that the same siloxane compounds of the present invention are neither taught nor suggested. That is, for both the catenate siloxane and the cyclic siloxane, groups R_2 and R_3 are each alkyl, aryl, vinyl and alkoxy with the proviso that there can be no more than one aryl or vinyl group in the molecules per single silicon atom. Thus, not only is the definition of group R of the catenate and cyclic siloxanes of the present claims different from the definitions of groups R_2 and R_3 , but the proviso limitations are different in that in the patent only two hydrocarbyl groups, i. e., vinyl

Appln. No. 10/649,722

Reply to the Office Action of September 30, 2005

and aryl are limited to no more than one per silicon atom, while in the present claims, all hydrocarbyl groups are limited to one per silicon atom. There is therefore a clear distinction between the water scavenger of Claim 16 of the reference and that of the present invention, and withdrawal of the rejection is respectfully requested.

It is believed that the application is in proper condition for allowance. Early notice to this effect is earnestly solicited.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER AND NEUSTADT, P.C.
Norman F. Oblon



Frederick D. Vastine
Registration No. 27,013

Customer Number

22850

(703) 413-3000

(703) 413-2220 (fax)

NFO:FDV